

- Find GCF using prime decomposition:
a. $GCF(117, 195, 312)$; *b.* $GCF(306, 340, 850)$;
- A teacher divided 87 notebooks between the students in the class equally. How many students in the class and how many notebooks did each student get?
- Find the LCM using the prime decomposition:
a. $LCM(72, 90, 96)$; *b.* $LCM(58, 87, 435)$
- There are less than 100 apples in a box. They can be evenly divided between 2, 3, 4, 5, and 6 kids. How many apples are there in the box?
- Knives are sold 10 to a package, forks are sold 12 to a package, and spoons are sold 15 to a package. If you want to have the same number of each item for a party, what is the least number of packages of each you need to buy?
- Two buses leave from the same bus station, following two different routes. The first bus takes 48 minutes to complete the round-trip route, while the second one takes 1 hour and 12 minutes to complete the round-trip route. How much time will it take for the buses to meet at the bus station for the first time after they have departed for their routes at the same time?
- In the depot, 3 trains were formed from identical cars. The first one has 418 seats, the second one has 456 seats, and the third one has 494 seats. How many cars are in each train if it is known that the total number of cars does not exceed 50?



- Mary has a rectangular backyard with sides of 48 and 40 yards. She wants to create square flower beds, all of the equal size, and plant different kinds of flowers in each flower bed. What is the largest possible size of her square flower bed?
- Number 882 is divisible by 147, the number 147 is divisible by 21. Is 28 a divisor of 672?
- Vinny the Pooh claimed that he knows the number, the product of whose digits is 6552. The Rabbit says it's not true. How does he know?

11. Fill the empty spaces in the magic squares so that all the columns, rows, and diagonals have the same sum of numbers (all numbers should be different).

a.

2		6
	5	1
4		

b.

3		15	14
13	16		
10	11		
8		12	9

c.

8		4
		9
	7	

d.

	1	
3		7
	9	

12. There are 2026 even numbers. Is their sum a prime number?
There are 2026 odd numbers. Is their sum a prime number? Explain.